**Description**

Consider the design of a car review system in a social networking site such as www.carreview.com. Each car is identified by the manufacture, the model, the make, and the year it is made. Each car has a list of features, with each feature identified by a feature id, feature name, and a longer description. Each member of the social website is identified by a username (unique), age, gender, city, state, and email. Each member can write at most one review for each car and as part of the review, list features that are desirable for him/her in the order of importance. In addition, each member can read other people’s review and choose to give a review rating in the following category: 1) extremely helpful, 2) very helpful; 3) helpful, 4) not helpful, 6) misleading. Each member can give at most one rating to each review but she/he cannot give a rating to his/her own review.

**Part 1**

Design the database using the ER approach and then create the tables accordingly. Populate the tables so that each table contains at least 10 tuples. Then using Java and SQL, implement the following functionality:

1. Insert a new member, make sure that username has to be unique and each email is associated with at most one member.
2. Delete an existing member;
3. Update an existing member by any attribute.

Some simple GUI interfaces are expected for each functionality.

**Part 2**

Based on part 1, implement the following functionality using Java and SQL with simple GUI interface:

1. Insert/delete/update a car.
2. Insert/delete/update a review.
3. Insert/delete/update a review rating.
4. Modify a review by updating the preference feature list.
5. List all the reviews created today in the order of most recent review first.
6. List all the reviews that are not rated by any member.
7. List all the reviews that at least 5 people consider as “very helpful” or “extremely helpful”.
8. Return the top feature of the car that has received the most number of reviews.
9. List the member who always gave the rating of “misleading” to each review.
10. Find two members A and B who help each by always giving the rating of “extremely helpful” to each other’s reviews.